IN THE DRAWINGS:

Applicants request substitution of the Replacement Sheet (Fig. 1) appended hereto, for original Fig. 1. Replacement Fig. 1 incorporates changes as required in the Office Action (as further described in the Remarks).

REMARKS

Claims 1-7 are pending. By this Amendment, the specification, drawing and claims 1, 3 and 7 are amended.

Paragraph 2, on page 2 of the Office Action, incorrectly states that the PCT filing date cannot be applied to the current application, since the effective filing date is outside the period for filing the U.S. application from a PCT. In fact, the present application was accepted as a U.S. national phase filing, based upon the original filing of the application on July 14, 2004, and subsequent filing of the inventor declaration (with surcharge and extension fees) on October 25, 2005. This is reflected in the Notice of Acceptance of Application (copy attached). As that Notice states, the effective filing date of the application is the international filing date of the international application. This was explained to the Examiner by the undersigned in a teleconference on March 16, 2009. Confirmation of the point in the next Official action is respectfully requested.

Regarding the Information Disclosure Statement (IDS) filed July 14, 2004, applicants believed that copies of the documents would be provided to the USPTO together with transmittal of the International Search Report for the corresponding PCT application. Since they apparently were not, applicants will seek to obtain copies of the references and submit them in the near future with a supplemental IDS.

The Office Action states a number of objections to the single drawing figure of the application (Fig. 1). In response, applicants are submitting herewith a corrected Fig. 1 incorporating the changes required by the Office Action. In particular, the drawings now show, in block form, the claimed elements of an emulator, IP-Xpress board and control means. Additionally, the illustrated switching means, clock oscillator and multiplexer are now provided with the appropriate reference numerals. No new matter has been entered. Accordingly, withdrawal of the drawing objections is

respectfully requested.

The specification is amended to incorporate section headings as suggested in the Office Action. Also, the editorial changes as requested at paragraph 7 and 8 (page 5) of the Office Action are effected. Note, however, that "form" at page 3, line 11 of the specification remains as is, as it is believed to be correct.

A number of claim objections are stated in the Office Action. Each is believed to be fully addressed by amendments to the claims submitted herewith.

Claims 1-7 were rejected under 35 USC § 112, second paragraph, for alleged indefiniteness. Each of the points raised in the Office Action is believed to be fully addressed by the amendments to the claims submitted herewith.

Claim 7 stands rejected under 35 USC §102(e) as being anticipated by Kirsch et al. USP 6,473,727. Claims 1-6 stand rejected under 35 USC § 103(a) as being unpatentable over the existing art acknowledged in the application, in view of Kirsch et al. For reasons as set forth below, it is respectfully submitted that the inventions as presently claimed are neither taught nor suggested by Kirsch et al., alone or taken together with the acknowledged art discussed in the application.

Both the anticipation rejection of claim 7, and the obviousness rejection of claim 1-6, are premised on an understanding that Kirsch et al. teaches or suggests a clock switching operation/means as set forth in the claims. However, in fact, Kirsch et al. provides no such teaching or suggestion.

With the amended claims, it is made even clearer that, in accordance with the invention, a design mapped onto an emulator is clocked to test the design, an IP core is clocked with the same clock used for testing the design mapped onto the emulator, and a switch is made from the clock used for testing the design mapped onto the emulator to a second clock source (comprising a clock

oscillator or any free-running clock source) for carrying out a debugging operation. In contrast, Kirsch et al. discloses that in preparation for a debug operation,

> the scan controller 40 in turn signals a clock controller 48 via Enter Scan control line 50 to cleanly switch the clock source from a free-running Master clock to an off-chip controllable Scan Clock 52.

Kirsch et al., column 3, lines 12-17.

While Kirsch et al. disclose a switch in a clocking source, it is not a switch as called for the in the claims. It is a switch from a free-running master clock to an off-chip controllable scan clock (see quoted excerpt above). On the other hand, according to each of independent clams 1 and 7, the switch is from the clock used for testing of a design mapped onto an emulator to a second clock source comprising a clock oscillator or any free-running clock source. Kirsch does not disclose or suggest in any way a switch away from a clock used for testing a design mapped onto an emulator, and to another clock source.

As described in the present application, the method and apparatus of the present invention addresses a problem that arises upon seeking to carry out concurrent hardware and software emulation and debugging, i.e., debugging of a hardware design mapped to an emulator as well as debugging of software run on an associated IP core. *See* application paragraph bridging pages 1 and 2. The issue of synchronously stopping both hardware and software, but avoiding the problem of the software debugger not properly working as a result of the resources of the software execution not being visible – which can arise in the case of the IP core being clocked by the clock generated by the emulator system (and stopped when the emulator system is stopped) -- simply does not arise in Kirsch et al. Rather, the Kirsch et al. disclosure is focused on switching to accommodate software debugging (only). Thus, the reference provides no teaching or suggestion of switching away from a clock used for the testing of a design mapped onto an emulator and to a second clock source, as

claimed.

   For all of the foregoing reasons, it is respectfully submitted that this application is now in

condition for allowance. Should the Examiner believe that anything further is desirable in order to

place the application in even better for allowance, he is respectfully urged to contact the applicant's

undersigned representative at the below-listed number.

                                                        Respectfully submitted,

                                                        /Christopher L. McKee/

                                                        Christopher L. McKee
                                                        Registration No. 32,384

BANNER & WITCOFF, LTD.
1100 13th Street, N.W., Suite 1200
Washington, D.C. 20005
(202) 824-3000

Dated: July 9, 2009